Gaffe Appeal
A Field Experiment on Partisan Selective Exposure to Election Messages*

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*T*he possibility that citizens expose themselves to information in biased ways—so-called selective exposure—has acquired new importance as the media environment has evolved to provide more choices concerning what to watch and read. But evidence for the most prominent idea in selective exposure research—that citizens prefer attitude-consistent information—is notably mixed. Methodological challenges likely contribute to the inconclusive nature of findings, as researchers face trade-offs between the artificiality of lab environments and the difficult-to-disentangle confounds of observational analysis. We improve understanding of selective exposure in two ways. First, we consider how message aspects other than attitude-consistency affect exposure decisions. Second, we study selective exposure with an innovative field experiment conducted in the United States that addresses limitations of other approaches. Our results allow us to reach more confident conclusions about the prevalence of motivated selective exposure, and help to illuminate underpinnings of the oft-lamented tendency for campaign media to focus on candidate miscues rather than substantive policy differences.

*C*andidate biographies. Voting records. Issue analysis. Economic trends. Editorial endorsements. Campaign ads and speeches. Polling results. Registration requirements. Voting locations. The arrival of the so-called information age means that a vast and diverse array of political information is seldom more than a few clicks away. Hurdles making it difficult to obtain information were once held to be a chief impediment to an informed citizenry (Katz and Lazarsfeld 1955; Converse 1962). Today, these impediments have all but vanished, making available to citizens a smorgasbord of information that has no practical limit.

A great irony of this sea change is that many citizens may acquire *less* political information— or at least a narrower sampling of information—than they did in the past. There is now considerable agreement that the exploding number of sources makes citizen choice a far more central factor in determining the dispersion of information. Previously, much of what citizens knew about politics was thought to come as a by-product of incidental exposure to information (e.g., LoSciuto 1972; Epstein 1973; Robinson 1976; Graber 1988; Fiorina 1990; Neuman, Just and Crigler 1992). Now, newly empowered to choose, many citizens opt for narrowly tailored sources, and many others opt out of political coverage altogether (Chaffee and Metzger 2001; Prior 2005; Bennett and Iyengar 2008; Lawrence, Sides and Farrell 2010; Arceneaux and Johnson 2013; though see Barberá N.d. on the diversifying potential of social media).

An age of abundant options makes understanding the basis of information choice all the more important, inviting a renaissance of efforts to explain how citizens choose what to read and watch. After all, the question of who gets what information is relevant to so many topics in the study of

politics. Informed citizens are more likely to participate and vote (Verba, Schlozman and Brady 1995), so patterns of choice could empower some constituencies while disempowering others. If citizens have a preference for some styles of coverage (e.g., confrontational) over others, it could explain why some ways of covering the news would succeed, even if they have damaging effects (Mutz and Reeves 2005). The possibility that citizens have a preference for attitude-consistent information could explain a rise in hostile feelings toward political opponents and other indicia of mass polarization (Prior 2007; Iyengar, Sood and Lelkes 2012; Mason 2014) and render those same citizens less responsive to new ideas and evidence that might change their minds (Zaller 1992).

This last concern calls attention to the long, tangled history of research on selective exposure in political science and social psychology (Lazarsfeld, Berelson and Gaudet 1948; Festinger 1957). Despite a great deal of research and widespread belief in the phenomenon both within and beyond scholarly circles, the proposition has always faced, as a recent review laments, daunting methodological challenges (Prior 2013). Among these are, as we expound below, (1) a particular vulnerability to error-prone self-reports, (2) the difficulty of distinguishing *motivated* selective exposure from selective exposure that is a by-product of social milieu (Sears and Freedman 1967), and (3) the possibility that citizens' behavior could be affected by studies that interrupt the naturalism of everyday exposure decisions. Moreover, substantial variance in the size of effects that have been identified suggest that selective exposure will never boil down to a simple "yes or no" account. Rather, exposure choices seem to depend on a rich set of circumstantial factors (Hart et al. 2009, for a review).

We present results that contribute to the discussion in several ways. First, following other recent research in this area, our study eschews a simple "yes or no" perspective on selective exposure. We deliberately set out to take account of conditional preferences for attitude-consistent information. Second, although our study is interested in when a preference for attitude-consistent information arises, we begin to examine dimensions other than attitude-consistency that guide exposure decisions on the idea (which we develop below) that past work has focused too narrowly on whether or not information is congenial. Third, we employ a unique design—an online field experiment using advertisements administered on the social networking website Facebook—that allows exposure decisions (gauged by choices about which ads to click) to be examined with uncommon naturalism while nevertheless retaining the benefits of random assignment.

To preview our results, we identify attributes of electoral message content that make a preference for attitude-consistent information more and less likely. When it comes to a policy-focused message, attitude-consistent information is only slightly more likely to attract citizens than attitude-inconsistent news. On the other hand, when it comes to an embarrassing personal failing (a gaffe by the opposing party's candidate), attitude-consistent news attracts much more attention than attitude-inconsistent news, a result we interpret as consistent with work highlighting the political significance of schadenfreude (Combs et al. 2009). Moreover, we find that partisans and nonpartisans alike are more likely to click to learn about a candidate's personal failing than damaging economic news, evidence that highlights a psychological basis for a lamented media emphasis on candidate gaffes (Patterson 1994).

We begin with a brief review of the selective exposure literature keyed to highlight psychological motivations that guide exposure decisions in a political context. From there, we describe how the design we employ complements several weaknesses of past studies before presenting our results.

A PREFERENCE FOR ATTITUDE-CONSISTENT INFORMATION?

There are several reasons why citizens might exhibit a preference for attitude-consistent information. Most prominently, cognitive dissonance theories suggest that there is a motivation

for consistency in mental representations (Festinger 1957; Harmon-Jones and Mills 1999). Perhaps because inconsistent representations generate a threat to one's self-concept (Steele 1988), or because it is unpalatable to realize oneself is incorrect (Kiesler 1971), people may be averse to information that they expect to challenge an existing attitude. In a somewhat different vein, many individuals seem to have a need for cognitive closure, part of which manifests as a desire to maintain beliefs as long as possible (e.g., Kruglanski 1996). This motivation may cause them to avoid information that challenges their current views. Recent work grounds such findings in an evolutionary framework by positing the existence of mental programs that function as a sort of "press secretary," seeking information that might be useful for persuasion (Kurzban and Aktipis 2007; Mercier and Sperber 2011).

In the study of politics, this attitude-consistency hypothesis has a rugged intellectual history. After the initial bout of enthusiasm bolstered by dissonance theory, it spent years in scholarly limbo following an unnerving review that critiqued the evidentiary basis of existing studies (Sears and Freedman 1967; also see Stroud 2011, 22–5, for a discussion). Research on the topic dwindled and evidence that citizens prefer congenial information was taken to be so weak that John Zaller's model of opinion formation simply assumed it away: "To the extent selective exposure occurs at all, it appears to do so under special conditions that do not typically arise in situations of mass persuasion" (Zaller 1992, 139).[1] Until quite recently, weaknesses in the data marshaled in favor of selective exposure have warranted considerable circumspection, leading researchers to deem the evidence "uncertain" (Taber and Lodge 2006, 756), "equivocal at best" (Iyengar et al. 2008, 187), or "thin" (Kinder 2003, 369).

Recently, innovative approaches have addressed many of weaknesses that hindered earlier studies and, we think, leave little doubt that an attitude-consistency bias arises, at least when the information is not crucial for completing a task (see Hart et al. 2009, for a review). To highlight just a few compelling studies, Redlawsk (2002) presents subjects with an information board containing details about fictional candidates and finds that subjects access information about liked candidates about twice as often as they access information about disliked candidates. Also using an information board, Taber and Lodge (2006) find that each of eight groups examined sought more attitude-confirming pieces of information than attitude-disconfirming ones. Valentino et al. invited subjects to view George W. Bush's and John Kerry's campaign websites and found subjects were unlikely to view the website of the candidate they disliked (Valentino et al. 2009, figure 3). Iyengar et al. (2008) mailed a representative sample of Americans CDs that contained campaign information and tracked recipients' usage. Both Republicans and Democrats exhibited preference for congenial information, and for Republicans, the difference was statistically significant. Similarly, Iyengar and Hahn (2009) presented laboratory subjects with a menu of news headlines and randomly assigned what news agency they came from. Democrats and liberals exhibited a preference for CNN and NPR, while Republicans and conservatives exhibited a preference for Fox News. Laboratory findings are consistent with recent observational evidence: for example, most Americans maintain social networks with highly homogenous political views (Mutz 2006), the vast majority of those who turn to blogs for political information regularly consult only those blogs that share their ideological and partisan affinities (Lawrence, Sides and Farrell 2010), and broadly accessible events such as the party nominating conventions exhibit marked partisan biases in their viewership (Stroud 2011).

On the other hand, attitude-consistency motivations must have limits. In the extreme, they would almost negate the possibility of persuasion, as any attitude-challenging information will

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[1] Thus, Zaller built a model of opinion dynamics principally on the availability of information and individual differences in the likelihood of seeking any political content.

be avoided—but persuasion sometimes occurs. In the terminology of social psychology, attitude-consistency motivations compete with accuracy motivations. People have an interest in making correct decisions, and sometimes uncongenial information is crucial to doing so (Kunda 1990, 481–2). Thus, in keeping with the idea that individuals reflexively weigh the costs and benefits of acquiring information, the bias in favor of congenial information seems to be lower when the information is instrumental to a goal (Hart et al. 2009).

A political context provides little guidance with respect to whether accuracy or congeniality motivations should prevail. On one hand, citizens have a stake in good (however they define this word) political outcomes, and political information can be diagnostic with respect to, for instance, which candidate to support or how to vote on a particular ballot initiative. On the other hand, many citizens possess strong emotional affinities for particular parties and are psychologically invested in seeing "their side" prevail; thus elections are opportunities to reap expressive benefits from partisan "cheerleading" (e.g., Campbell et al. 1960; Green, Palmquist and Schickler 2002; Gerber and Huber 2010; Bullock et al. 2013). It is clear that both motives shape political behavior, but there is much to learn about how they interact and when each applies.[2]

A PREFERENCE FOR PERSONALITIES OVER POLICIES?

The attitude-consistency hypothesis is focal in selective exposure research. It is easy to see why: the notion that citizens systematically avoid challenging information clearly has many impli-cations for democratic governance, tolerance, and participation (Mutz 2006). But citizens' exposure choices could be biased along dimensions other than attitude-consistency. Prior (2007), for instance, accumulates impressive evidence that the taste for political information *in general* matters: the growth of high-choice media leads politically uninterested individuals to select out of political coverage, with concomitant decreases in participation (Arceneaux and Johnson 2013). One can imagine many different properties that could influence exposure decisions: geographic proximity or relevance (are Americans more likely to read about foreign news when links to the US are made clear?), satirical versus serious coverage (Stroud and Muddiman 2013), familiarity of the source, novelty of the news, or threatening content (Gadarian and Albertson 2014).

Here, we consider the relative attractiveness of two types of content in media coverage of elections: *policy-focused* versus *person-focused* messages. By policy-focused messages, we mean facts, statistics, and revelations about current issues that might be diagnostic of the past or future effectiveness of a candidate's policies. By person-focused messages, we mean information on candidates' personal attributes, especially as reflected in one-off events such as rhetorical triumphs or embarrassing gaffes.

We acknowledge that our distinction between policy- and person-focused messages will not neatly categorize all media coverage.[3] In particular, some aspects of candidates' personalities

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[2] For example, reality typically offers up a mix of facts that can be selectively embraced by rival partisans to bolster the case for their party, but sometimes hard facts point overwhelmingly in one direction and constrain any role for wishful thinking (Parker-Stephen 2013). See Groenendyk (2013) for a discussion of how such competing motives affect partisanship itself.

[3] The distinction between policy- and person-focused information resembles the distinction between "hard" and "soft" news, and our study could be seen as informing that research agenda. We nonetheless refrain from adopting those labels here. The affinity is clear—Patterson's (2000) seminal report on the topic invoked terms like "personality-focused" and "major issues" in defining soft and hard news, respectively. But many researchers see these as broad multidimensional categories to which our study, with its focus on economic performance and candidate gaffes, can speak only modestly. Definitions of soft and hard news vary widely, making distinctions based on content, style, or both (Reinemann et al. 2012); some even assign all political content to a single

are relevant to performance in office, such as if voters perceive a candidate to have a temperament that makes him or her ill-suited for the job. Still, much contemporary analysis and criticism of how the media covers politics has contrasted sober and substantive issue content with news focused on game aspects of politics—personalities, polls, and campaign hoopla (Patterson 1994; Cappella and Jamieson 1997). From early on, observers worried about the impact of television on politics have fretted that "personal image" takes precedence over policy substance (Patterson and McClure 1976). This is the basic relationship we seek to test.

There is good reason to believe that citizens, on average, prefer information about personalities to information about policies. Campaigns and elections inundate voters with information—the volume and sophistication (e.g., budgetary implications of policies, economic figures) of which is more than most people are equipped or motivated to assimilate. One way voters can cope with the overload is by focusing on candidate characteristics: what sort of people—intelligent, compassionate, competent—are the candidates? Who would be more reliable in a time of crisis? Who is more charismatic? Voters often formulate opinions on such questions, even if their policy understanding is lacking, as they offer a familiar and manageable way to distill the deluge of information (Kinder 1986; Rahn et al. 1990; Aldrich, Gronke and Grynaviski 1999). For example, when candidates commit "gaffes"—mangling or misspelling words, slipping and falling, seeming out of touch or unfamiliar with an everyday practice, referring to people in an offensive manner—voters may draw inferences about their intellect, motivations, trustworthiness, or ability to understand the problems of others (Popkin 1994).

Nonetheless, a preference for personality over policy content at election time is hardly a foregone conclusion. Although political scientists have long debated the extent and sophistication of policy voting in the American electorate, there has been much stronger consensus that (at the very least) voters evaluate the performance of politicians in office, relying especially on judgments of economic performance (Fiorina 1981; Kinder and Kiewiet 1981; Hibbs 2000; Healy and Lenz 2013). Especially in times of economic woe, figures on unemployment and job creation from the Bureau of Labor Statistics are a recurring object of media scrutiny. Moreover, compared with learning personal details about the candidates, citizens may find it much easier to develop an impression of the state of the economy directly from their own experiences and those of their peers, unmediated by news organizations.[4]

The relative preference of voters for personalities over policy holds substantive importance. Past work documents—and laments—the media's hyper-focus on candidate missteps, as this focus might generate animosity and detract from constructive discourse about the issues (Patterson 1994). It is not known, however, whether the media's focus on candidate gaffes and the like arises from audience preferences, or some other market pressure, such as pressures to appear objective.[5] We shall have more to say on this matter in the conclusion.

(F'note continued)

category (hard news). Key debates in political science have emphasized the stylistic dimension and thus a contrast between soft and hard sources of news, in lieu of a finer-grained comparison of content within sources (cf. Baum 2002; Prior 2003).

[4] That said, there is considerable evidence that the economic judgments of citizens rest in no small part on media messages (MacKuen, Erikson and Stimson 1992; Hetherington 1996; DeBoef and Kellstedt 2004; Vavreck 2009).

[5] Patterson (1994) suggests that coverage of candidate gaffes is appealing because it is event-driven. Deep policy analysis requires media outlets to interpret and adjudicate competing claims. Event-driven analysis, in contrast, simply entails conveying the facts surrounding a recent occurrence. Event-driven news is also compatible with a preference for coverage of the "horse race" aspects of politics.

SCHADENFREUDE

Hearkening back to our earlier discussion of attitude-consistency biases, taking account of person versus policy focus can in turn illuminate conditions that make a preference for attitude-consistent information more or less likely. Specifically, we conjecture that a person-focused message may be especially likely to activate partisan selective exposure. Our thinking draws from research into the phenomenon popularly known as *schadenfreude*: the idea that, when misfortune befalls people we dislike or members of rival groups, it generates a positive emotional payoff (e.g., Portmann 2000; Combs et al. 2009).

Why do the findings concerning schadenfreude suggest that attitude-consistency biases would be more prominent for a (negative) person-focused message than a (negative) policy-focused message? We see two potential reasons. First, there is considerable evidence that pleasurable feelings are amplified when the disliked individual is responsible for the misfortune (Feather and Sherman 2002; van Dijk et al. 2005; van Dijk, Ouwerkerk and Goslinga 2009), and this characteristic is more prominent for person-focused messages (such as surround a campaign gaffe) than policy-focused messages. Second, person-focused messages, such as a campaign gaffe, are localized, typically having ramifications for the person in question, but not society at large. In contrast, policy-focused messages (e.g., discouraging news about the economy) might generate positive feelings insofar as a disliked person's policies are failing, but these could be countervailed by negative feelings about national prosperity. Consistent with these conjectures, Democrats reported considerably more pleasure upon reading about George W. Bush falling off his bicycle than about economic news that reflects poorly on his policies (Combs et al. 2009). It is not known whether the anticipation of such a payoff would guide prior exposure decisions, but the idea seems plausible and is consistent with our sense that moments of political embarrassment are met by political opponents with particular relish.

HYPOTHESES

The preceding discussion leads us to several hypotheses, some of which are offered as competitors. First, if people find information on candidates as people to be a more appealing way to distill political news than information about policy differences and details, then they should find an advertisement that focuses on a candidate gaffe more interesting and enticing than news linking the candidate's policies to economic performance. In terms of behavior, citizens will be more likely to pursue additional information (i.e., click) when an internet ad focuses on a gaffe, than when it focuses on economic performance (H1a, the Gaffe Hypothesis). Alternatively, citizens might perceive gaffes as haphazard events that provide little useful information for reaching a political decision. This might especially be true compared with news about the success or failure of economic policies, a factor which seems to weigh heavily on voters' decisions. If this inclination predominates, we would expect the promise of policy-focused news to generate greater interest, and therefore a higher probability of clicking (H1b, the Policy Hypothesis).

Next, we consider how citizens' partisan attitudes might bear on their exposure decisions. As we note above, people often seek to avoid attitude-inconsistent thoughts (because these create dissonance) and to avoid revisiting a decision once it has been made (because doing so removes cognitive closure). When these motivations prevail, citizens might avoid exposing themselves to information that implies their preferred candidate made an error—they will be relatively more likely to click on an ad that promises to reveal bad news for the opposing candidate (H2a, the Congeniality Hypothesis). But as we also note, politics might evoke accuracy motivations.

If accuracy motivations prevail, then citizens might be even-handed in their information search, finding information equally appealing irrespective of which candidate is harmed—or they might prefer *un*congenial information.[6] We label this latter possibility the Uncongeniality Hypothesis (H2b).

Finally, the discussion of schadenfreude suggests that citizens might anticipate a particularly large payoff of positive feelings when they think they have encountered news that is damaging to a disliked individual (or member of a rival group) *and* the individual is personally responsible for his or her own misfortune. This suggests advertisements will entice the most clicking when they are simultaneously congenial and gaffe-focused. Thus, the Schadenfreude Hypothesis (H3) predicts that citizens are particularly likely to click on ads that promise to reveal a gaffe committed by a candidate from the opposing party.

METHODS

As we noted at the outset, selective exposure research has grappled with measurement difficulties. Sears and Freedman's (1967) landmark review chilled the research enterprise for decades by pointing out just how daunting the challenges surrounding self-reports of information exposure are. There are the familiar problems of subjects misremembering what they read or exaggerating their sophistication and balance. But on top of these, there is the problem that so much of what citizens see and read is a by-product of their environment and other unrelated choices (Fiorina 1990). A liberal who works amidst conservatives often benefits from hearing perspectives that would otherwise have been missed, and vice versa. Likewise, the prominence of particular topical interests and other facets of one's social milieu will cause many people to stumble onto certain kinds of information in spite of themselves. Where there is a strong correspondence between the partisanship of the audience and the source, it could be due to selective exposure, persuasion, or it may not reflect a direct causal relationship at all (e.g., a conservative community is likely to give rise to conservative local media and a conservative readership, even if neither influences the other). As Prior states the difficulty, "empirical analysis is severely hampered by a seemingly simple problem: we do not know how many and what kind of people are exposed to which messages" (2013, 102).

One remedy to these difficulties is for researchers to exert control over what information is available and monitor exposure decisions in the context of this constructed environment. Controlling the "menu" of information available addresses the problem of *de facto* selective exposure (Iyengar et al. 2008; Valentino et al. 2009), but the approach has a liability of its own. In these approaches, subjects typically have reason to believe that their behavior is being monitored. As Stroud (2011, 25) notes, this awareness could increase accuracy motivations and thus dampen selective exposure, leading to a systematic underestimation of biases.[7] In fact, some studies intentionally boost this motivation. Taber and Lodge (2006, 759) explicitly tell subjects to view information "in an even-handed way." This approach is commendable in the spirit of epistemological conservatism—it handicaps the researchers' hypothesis that a bias exists—but overall it could lead us systematically to underestimate the real degree of selective exposure.

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[6] In keeping with this conjecture, in a meta-analysis, Hart et al. find that "an uncongeniality bias emerged when uncongenial information was relevant to accomplishing a current goal" (2009, 555). We posit that the reason individuals might favor uncongenial information over a completely even-handed search is that uncongenial information can change a person's existing preference—it can inspire a change to behavior—where congenial information serves to reinforce existing choices.

[7] Stroud (2011, 67–73) takes an extra step to mitigate this problem. She obtains subjects' ideological preferences and surreptitiously monitors their magazine reading choices in a waiting room.

We employ an approach that provides an unusual degree of naturalism while leveraging the benefits of random assignment and avoiding the pitfalls of self-reports. Following Ryan (2012; see also Broockman and Green 2014) we conduct a field experiment in which internet users located in the United States are presented with randomly assigned political advertisements in the course of their routine web browsing. We do so by placing the ads on the social media website Facebook. Facebook has several benefits as a site for the research. It is a large and hetero-geneous user community (148 million US adults as we write, or about 62 percent of the US adult population).[8] It allows the easy and cost-efficient purchase of a large number of adver-tisements. It allows advertisements to be targeted based on information users provide in their profiles, including information that conveys their political leanings. And key for the present study, it allows us to examine advertisement click-through rates—the proportion of advertise-ments displayed that were actually clicked—as a dependent measure. As such, we are able in a sense to extend the granular information search measures developed by Lau and Redlawsk (2001) for a laboratory context to a fully naturalistic setting in which subjects do not even know their behavior is being monitored.

Our study was conducted among users in the United States from October 18 through November 7, 2012, as the US presidential election was at peak intensity. The study presented Facebook users with ads that insinuated the revelation of information damaging to one of the presidential candi-dates, and invited them to click to find out more information.[9] As shown in Figure 1, there was a 2×2 manipulation of which candidate was supposedly damaged (Mitt Romney or Barack Obama) and whether there was a policy focus ("Learn how the latest economic numbers hurt [candidate]") or a person focus ("Learn about [candidate's] latest embarrassing gaffe on the economy").

We consider the Romney/Obama manipulation to be face valid. As we foreshadow above, the second manipulation maps onto a distinction between the facets of campaigning that have a clear link to public policy, versus those that focus on personal image while being a step removed from policy (Patterson and McClure 1976). We examine this distinction by creating exemplars of these broader categories. The specific instrumentation was inspired by events we observed in 2012. Throughout the campaign, various happenings were presented—not without reason—as being diagnostic of the quality of the candidates' policy positions. Examples include fluctuations in the price of gas, changing indices of economic inequality, improvements or declines in students' standardized test scores, statistics on the prominence of crime, and perhaps most prominent, monthly reports from the Bureau of Labor Statistics on the rising or falling unemployment rate. Candidates routinely reference facts like these in advertisements, debates, and interviews, and many perspectives would consider them among the most estimable criteria for citizens to use in forming their opinions (Lippmann 1955). Juxtaposed against this sort of information are one-off events that reflect well or poorly on a candidate, but in a shallower way. Recent politics offers no shortage of these: Mitt Romney's awkward "binders full of women" moment during the second presidential debate; Barack Obama's assurance (amidst a languishing economy) that the "private sector is doing fine;" Marco Rubio's ill-timed need for a drink of water during his response to President Obama's State of the Union address.

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[8] Facebook also has a large international user base, so studies like the one we report here can be conducted cross-nationally.

[9] Thus, all of our ads had a negative tone, and this study does not speak directly to biases that might emerge with respect to promotional, rather than derogating messages. We made this design choice for two reasons. First, we simply lacked the financial resources to conduct a well-powered study with an additional, fully crossed experimental factor. Second, we approached this study with a topical interest in schadenfreude, and we do not see schadenfreude research as implying clear hypotheses about positive information. After all, schadenfreude is theorized to be a phenomenon that concerns *misfortune* to disliked others.
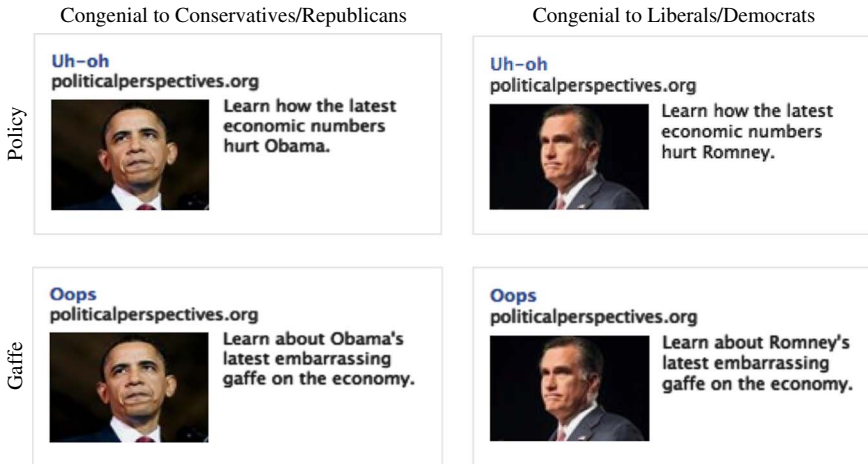
Congenial to Conservatives/Republicans   Congenial to Liberals/Democrats

Fig. 1. *Experiment stimuli*

Citizens' appetite for learning about these different types of revelations is what we seek to test. We conducted a manipulation check on an external sample to verify that the policy-relevant advertisement increased subjects' focus on "public policy," "politically relevant facts and figures," and "the state of the national economy" *without* appearing more novel (Supporting Information, Table A1).[10]

All four ads were presented to both liberals and conservatives in equal degree. To do so, we took advantage of Facebook's ability to target advertisements based on users' interests. We targeted ads at US users whom Facebook classifies as having either a liberal or a conservative affiliation.[11] Because some individuals in each ideological group saw ads attacking each candidate, the resulting configurations can be coded as attitude-consistent (e.g., a liberal user seeing an ad attacking Mitt Romney) or inconsistent (e.g., a liberal user seeing an ad attacking Barack Obama).

We are also interested in the responses of non-ideologues, as they present a useful point of comparison: What does exposure look like when information pushes neither for nor against existing partisan attitudes? Non-ideologues are also useful in assessing the extent to which our findings pertain only to individuals who have exhibited some interest in politics. The capabilities of

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[10] One might wonder why even our person-focused advertisement mentions the economy. This was a deliberate choice on our part to design a conservative test of the Gaffe and Policy Hypotheses; even the gaffe condition is not entirely devoid of policy content.

[11] Facebook keeps the exact details of how these categories are constructed proprietary. The company does, however, confirm that they derive from users' revealed preferences, captured by interactions with the website: the pages they "liked," the content they shared, the applications they use, and keywords listed in their profile. Facebook classifies 20 percent of US users as conservative and 17 percent as liberal, so the categories seem to be neither too narrow nor too inclusive. (As a point of comparison, 22.7 percent of Americans self-reported as conservative in the 2012 American National Election Study, and 13.3 percent self-reported as liberal, leaners excluded.) We see the Facebook categories as reflecting meaningful, but not extreme, political preferences.

One question that might arise is whether the categories more closely correspond to ideology, or instead partisanship. The categories nominally refer to ideology, but as we note above, they derive from users' revealed preferences for partisan candidates. Especially given evidence that partisan sorting has muddied the distinction between partisanship and ideology (Levendusky 2009), we think it is reasonable to treat the categories as a proxy for partisan attachment, and the attitudes that come with it.

Facebook's advertising engine limited how completely we could isolate non-ideologues. We could not target non-ideologues directly, as there was no targeting category for them.[12] We could not exclude ideologues from being targeted, as the software does not allow exclusion of specific demographics. In lieu of these preferable options, we administered our advertisements to users who registered an interest in sports or music. We chose these demographics to represent a non-ideological category after investigating several alternatives, based on three criteria. First, the sports and music categories are nonpolitical in nature. Second, they contain a relatively low proportion of ideologues.[13] Third, to the extent they do overlap with the ideological categories, they overlap with liberals and conservatives in roughly equal degree. But we wish to emphasize that the "non-ideological" grouping we analyze below is best thought of as considerably *less* ideological than the comparison points, but one that still contains some internal heterogeneity.

Although an individual-level randomization would of course be desirable, it is not possible in this sort of study. The reason is that the advertisements that appear on a user's screen when he or she loads a page are determined by an instant auction in which advertisers automatically bid (up to a maximum) for the opportunity to appear. The outcome of such auctions likely have some stochastic properties, but are not truly random. Instead, following Ryan (2012), our approach is to conduct a large number (hundreds) of miniature campaigns, randomly assign one ad version to each of them, and examine campaign performance (as measured by the click-through rate in each). Thus, campaigns, rather than individual people or ad displays, are the unit of analysis in the results we report below.

How does one conduct a valid random assignment when campaigns are the unit of analysis? Similar to Ryan (2012), we use Facebook's targeting capabilities to partition Facebook's American user base into clusters defined by arbitrary demographic characteristics, such as age, gender, and where they live. Then, we randomly assign each cluster to be the target of a campaign featuring just *one* of our four advertisements. By using clusters that are mutually exclusive, we can be certain that any given person will see only one type of ad. Because the partitioning occurs before the random assignment, any particular cluster (e.g., 34-year-old married females living in California) has an equal *ex ante* probability of being assigned to each of the four conditions. Because the demographic information used to partition the clusters is retained, it can be used to conduct subgroup analyses or as controls in multivariate regression. Ryan and Broockman (2012) provide additional practical details on how to implement this randomization procedure, as well as an illustrative example.

In the present study, we partition each ideological group into clusters based on discrete ages, gender, geography (where users live), and relationship status.[14] We create 282 clusters within each of the three ideological groups, for 846 clusters overall. We block our randomization (cf. Gerber and Green 2013, 71–9) to ensure that treatment conditions will be balanced in terms of age, gender, geography, and relationship status.

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[12] Facebook has added new capabilities since we ran our tests. It is now possible to target people who are politically active, but ideologically moderate.

[13] Of the 82.47 million users in the "Music" category at that time, we calculate that 18.8 percent are liberal and 15.3 percent are conservative. Of the 62.21 million users in the "Sports" category, we calculate that 9.1 percent are liberal and 6.9 percent are conservative.

[14] Each geographical division includes 25 states that, combined, are almost exactly equal in overall population. We report the exact groupings in the Supporting Information. Relationship status is a desirable partitioning variable because its categories are mutually exclusive—one cannot be both "single" and "married"—and because the inclusion of a "not specified" category makes the categories jointly exhaustive. The two divisions used (constructed to be roughly equal in size) were "single," "engaged," or "married" as one group, "in a relationship" or "not specified" as the other.

Clicking the ad caused a subject's computer to load a webpage (designed by the authors) with an array of links congruent with the advertisement (e.g., a link to GOP.com for ads attacking Barack Obama, a link to Democrats.org for ads attacking Mitt Romney).

RESULTS

Overall, our ads were displayed 14,017,732 times and received 1444 clicks, a click-through rate of 0.0103 percent. This low click-through rate is typical for online advertisements, which succeed by force of number and low cost. Table 1 gives a sense of the data, reporting the total number of impressions (i.e., displays of the ad) and clicks, pooling across all clusters randomly assigned to each experiment condition.

Some details require explanation before we can move to the main tests of our hypotheses, namely a campaign- (or cluster-) level analysis. In a study of this sort, the number of impressions is different for each cluster. This occurs for two reasons. First, the population in some clusters is smaller than in others; consider that 64-year olds are about four times more scarce on Facebook than 18-year olds. Second, some targeting combinations are more coveted by competing advertisers than others, making it more difficult for the ads we purchased to win the automated auctions. As a result, the number of ad displays varies widely, from just 384 in one extreme to 362,102 in the other.[15] To make the observations comparable with each other, we use each cluster's click-through rate—simply clicks divided by impressions—as our primary dependent measure. This choice leaves a concern about heteroskedasticity: the clicking rate is measured more precisely to the extent the number of impressions is large. Happily, we can incorporate our knowledge of the differing variance by using weighted least squares (WLS) to correct standard errors (Greene 2008, 167–9). In the multivariate analyses below, we weight each observation by the number of impressions that cluster received. In addition, we use heteroskedasticity-consistent standard errors throughout.

Further, we face a choice concerning how to estimate out statistical models. Many of our campaigns received no clicks at all, although we are confident that if we had the resources to run them for longer, they eventually would. We could approach this as a censoring problem, specifying 0 as the mass point and estimating Tobit models. In such an approach, parameter estimates would be consistent, but they would only be interpretable as linear relationships to an underlying latent variable. Alternatively, we can estimate WLS models. WLS parameter estimates are biased in the face of a censored dependent variable, but the bias is typically toward 0, which would make our hypothesis tests more conservative (Greene 1981; Chay and Powell 2001). WLS results also have the virtue of being easier to interpret. We opt to report WLS models here, but estimate all models by Tobit and report the results in the online Supporting Information. Results are consistent across the two approaches.

Finally, to make results easier to interpret, we multiply the dependent variable (i.e., the click-through rate in each cluster) by 10,000, reducing the clutter of leading zeroes. Thus, our first model—assessing the effect of the gaffe manipulation—is

$$(\text{Clicks}/\text{Impressions}) \times 10,000 = \beta_0 + \beta_1 \text{ Gaffe dummy} + \epsilon.$$

The first column of Table 2 shows the results. They suggest that, where clusters that were exposed to policy-focused ads had an average clicking rate of 0.00909 percent (the constant term),

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[15] The general spread is not as wide as one might infer from these outliers. The middle 80 percent of clusters had between 1,478 and 38,939 impressions.

TABLE 1   *Impressions and Clicks, by Condition*

	Consistent	Inconsistent	Neither (Non-Ideologues)
Policy			
Impressions	1,279,402	1,324,778	4,175,725
Clicks	126	124	366
Rate	0.010%	0.009%	0.009%
Clusters	141	141	141
Gaffe			
Impressions	1,537,661	1,682,488	4,017,678
Clicks	257	164	407
Rate	0.017%	0.010%	0.010%
Clusters	142	140	141

TABLE 2   *Responses to Gaffe Manipulation*

	All Subjects	All Subjects	Liberals	Conservatives	Non-Ideologues
Gaffe ad	0.235**	0.282***	0.491**	0.300**	0.175**
	(0.097)	(0.084)	(0.230)	(0.135)	(0.068)
Female	—	−0.145*	−0.274	−0.226*	−0.128
	—	(0.079)	(0.232)	(0.123)	(0.080)
Geographic cluster	—	0.016	−0.260	−0.048	0.080
	—	(0.069)	(0.159)	(0.122)	(0.071)
Relationship cluster	—	−0.108	−0.158	−0.075	0.020
	—	(0.081)	(0.198)	(0.124)	(0.064)
Age	—	1.384***	2.213***	1.027***	0.963***
	—	(0.177)	(0.350)	(0.280)	(0.129)
Constant	0.909***	0.659***	0.747***	0.613***	0.655***
	(0.056)	(0.091)	(0.212)	(0.161)	(0.085)
Observations	846	846	282	282	282
R^2	0.012	0.173	0.261	0.079	0.155

Weighted least squares models. Dependent variable = cluster click-through rate × 10,000. Robust standard errors in parentheses.
***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

clusters exposed to gaffe ads had a clicking rate of 0.01144 percent. This might seem like a minor difference, given the low baseline. But it is statistically significant and, more important, big enough to matter for the success of a campaign. For instance, the effect of 0.235 implies that the gaffe advertisement would increase the number of clicks garnered over a $1000 campaign from 1272 to 1601, lowering the cost per click from $0.78 to $0.62.[16]

The results in Table 2 are relevant to our hypotheses. Specifically, the significant increase in clicking caused by the gaffe-focused advertisement is inconsistent with the Policy Hypothesis (H1b), but corroborates the Gaffe Hypothesis (H1a). We probe this result in several ways. First, we present a model that uses our available covariates.[17] We find that older Facebook users are

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[16] These figures make it more expensive to convey information via an internet page view than via a television advertisement. Based on publicly available data (Mahapatra 2013), we estimate that a 30-second primetime ad on a national television show costs roughly $1 for every 60 show viewers. However, internet pages are more interactive and engaging, and can better monitor recipients' behavior (such as which parts of a target website were visited) so might well be worth the extra cost.

[17] Once standard practice, the use of covariates in randomized studies has fallen under scrutiny following Freedman's (2008) demonstration that regression adjustment can introduce bias. Further investigations

more likely to click advertisements, and that the estimated treatment effect increases slightly. Second, we repeat the analysis for our three ideological subgroups: liberals, conservatives, and non-ideologues, looking for texture in whether one ideological group responds more strongly to the treatment than others. The treatment effects are of a comparable magnitude in each subgroup, suggesting that the gaffe manipulation resonates with each category of user in roughly equal degree.

To assess the hypotheses related to attitude-consistency, we conduct a similar analysis focused on the congeniality manipulation. In Table 3, the same dependent variable is regressed on an indicator for assignment to a congenial ad. The ads are neither congenial nor uncongenial as applied to non-ideologues, so they are not included in this analysis. Working toward a substantive point, we look at the results in two stages. First, we consider the Congeniality Hypothesis within the context of subjects who saw an ad regarding the latest economic news. Second, we examine the results in the other group—people who saw a gaffe-focused ad. Of course, the same data could be pooled and analyzed in an interactive model, which we provide in the Supporting Information (Table A4).

The left side of Table 3 supports neither the H2a nor H2b, as the coefficients are not distinguishable from 0. As is always the case, we cannot rule out the possibility of an effect that is genuine, but too small to detect. Still, a power analysis suggests that even within this reduced sample, we are well equipped to detect effect sizes of the magnitude seen in Table 2. We thus interpret this as evidence that the effect of the congeniality manipulation is near 0; where messages emphasizing the performance of the economy are concerned, neither liberals nor conservatives exhibit a systematic preference either for ads that attack their disliked candidate nor for ads that attack their preferred candidate.

The story on the right side of Table 3 is rather different. We see that, among subjects assigned to the gaffe condition, the congeniality treatment has a pronounced positive effect, significant in each subgroup. The effect here is about three times as large as the main effect seen in Table 2; it implies a 71 percent increase in clicking when exposed to an attitude-consistent ad. As before, there is little evidence of a differential response by liberals and conservatives: ideologues of both stripes are more likely to click ads attacking the opposition candidate for an embarrassing remark. This leaves us with strong evidence against the idea that citizens are receptive to adjusting their pre-existing views by pursuing attitude-inconsistent information (H2b).

The results in Table 3 belie a simple understanding of congeniality and selective exposure, as effects are small or 0 among subjects in the Policy condition, but convincingly positive for subjects in the gaffe condition. What of the Schadenfreude Hypothesis, which predicted an interaction between the candidate manipulation and the gaffe manipulation? To assess it, we estimate

$$(\text{Clicks}/\text{Impressions}) \times 10,000 = \beta_0 + \beta_1 \, \text{Gaffe} + \beta_2 \, \text{Congeniality} +$$
$$\beta_3 \, \text{Gaffe} \times \text{Congeniality} + \beta_4 \, \text{Female} +$$
$$\beta_5 \, \text{Geography} + \beta_6 \, \text{Relationship} + \beta_7 \, \text{Age} + \epsilon,$$

among the partisans in our sample. As reported in the Supporting Information, the interaction term is marginally significant ($\beta_3 = 0.434$, SE $= 0.254$, p < 0.09). As H3 is directional—it implies that

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(F'note continued)

demonstrate (1) that the bias generally diminishes rapidly as the sample size exceeds 20, (2) that it is much less problematic when the treatment and control conditions are roughly equal in size (a condition our study satisfies), and (3) that including covariates that are prognostic of the outcome can improve precision substantially (Green and Aronow 2011; Lin 2013). For these reasons, and because the effects of covariates might be of interest in their own right, we present the multiple regression results.

TABLE 3   *A Conditional Preference for Attitude-Consistent Information*

	Policy Condition				Gaffe Condition			
	All Partisans	All Partisans	Liberals	Conservatives	All Partisans	All Partisans	Liberals	Conservatives
Consistent ad	0.049	0.137	0.220	0.194	0.697**	0.636***	0.774***	0.535***
	(0.202)	(0.146)	(0.211)	(0.145)	(0.302)	(0.184)	(0.295)	(0.179)
Female	—	−0.101	−0.044	−0.367**	—	−0.321*	−0.560**	−0.173
	—	(0.141)	(0.230)	(0.154)	—	(0.169)	(0.274)	(0.176)
Geographic cluster	—	−0.413***	−0.639***	−0.125	—	0.104	0.052	0.126
	—	(0.138)	(0.186)	(0.147)	—	(0.149)	(0.248)	(0.166)
Relationship cluster	—	−0.212	−0.261	0.257	—	−0.289	−0.286	−0.159
	—	(0.149)	(0.213)	(0.174)	—	(0.181)	(0.260)	(0.166)
Age	—	1.202***	1.490***	0.324	—	2.340***	2.781***	1.329***
	—	(0.267)	(0.356)	(0.314)	—	(0.331)	(0.398)	(0.457)
Constant	0.936***	0.913***	1.040***	0.676***	0.975***	0.623***	0.718***	0.550***
	(0.142)	(0.159)	(0.219)	(0.173)	(0.108)	(0.162)	(0.208)	(0.193)
Observations	282	282	141	141	282	282	141	141
R^2	0.000	0.131	0.177	0.083	0.050	0.306	0.401	0.129

Weighted least squares models. Dependent variable = cluster click-through rate × 10,000. Robust standard errors in parentheses.
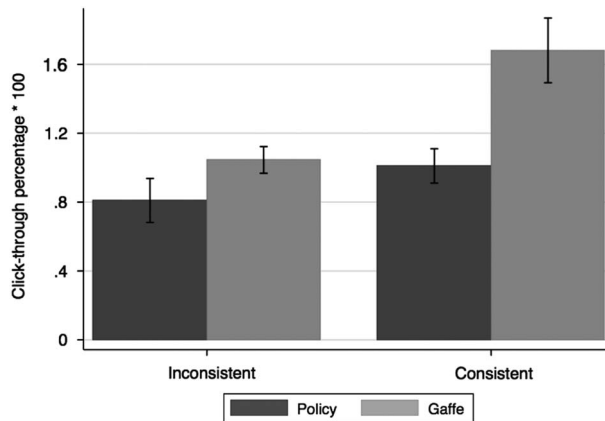***p < 0.01, **p < 0.05, *p < 0.1.

Fig. 2. Predicted click-through rates, based on interactive model.
Note: whiskers are ± 1 SEE.

β_3 should be positive—we can apply a one-tailed test and reject the null with reasonable confidence ($p < 0.05$). Figure 2 conveys the relevant results graphically by plotting the predicted click-through percentages, by condition, with control variables held at their means. Here again we see evidence that congeniality elicits clicking, but that the combination of gaffe-focus and congeniality is especially effective.

We sum up by reviewing how the evidence we present relates to our hypotheses. Citizens do not seem to seek out policy-related information that might make vote choices more responsive to policy successes and failures. Nor do they exhibit much appetite for information that might challenge their existing attitudes. Instead, person-focused revelations (gaffes) and attitude-consistent information pique the most interest. According to the Schadenfreude Hypothesis, partisans seem especially likely to seek out personally embarrassing information about the opposing side.

Can we conclude that the effects predicted by the Gaffe Hypothesis (H1a) are general, rather than limited to the special case of an interaction with the congeniality manipulation? We think so. As Figure 2 reflects, the estimated effect of the gaffe manipulation among individuals who saw an uncongenial ad is positive (but not significant: $p < 0.22$, two-tailed). More important is the significant positive effect of the gaffe manipulation among non-ideologues (see Model 5 in Table 2). These results suggest that, even among a group weak in ideological leanings, and across ads equally likely to attack Mitt Romney or Barack Obama (the candidate manipulation is orthogonal here), the gaffe-focused ad evokes significantly more clicks. (Though it is also worth noting that the magnitude of the effect is considerably smaller than among partisans.)

CONCLUSION

The choices citizens make about what to read, watch, and listen to bear on how they interact with each other and the broader political system. We present data that move the discussion forward in several productive ways.

First, we bring to this area of study a new research design with distinct advantages. We combine randomized control over what subjects see with the ability passively and naturalistically to observe their behavior in a powerful combination. Where self-reports have difficulty separating motivations from context and laboratory studies could activate motivations

for balance and accuracy, we think our design results in an especially pure view of exposure motivations in the real world. The online setting of our study also enhances the contemporary relevance of our results. Especially for younger generations, the internet is the new default for learning about nearly every topic, including politics.

We find strong evidence that belies a simple understanding of partisan selective exposure. The preference for congenial information is sometimes stark, but at other times fades to a whisper—a result that may help explain why conclusive results with respect to the Congeniality Hypothesis have proven so elusive. Moreover, we find that exposure decisions are markedly influenced by factors that have nothing to do with congeniality—a result that bolsters Prior's (2007) entreaty to expand the scope of selective exposure research.

Substantively, our results contribute to the study of media institutions and how they shape citizens' views of government. In *Out of Order*, Patterson (1994) documents an increase in the media's focus on candidate gaffes and campaign controversies.[18] The attention lavished on significant missteps, such as Mitt Romney's "binders full of women" remark, or Barack Obama's lackluster performance in the first 2012 presidential debate, remind us that these episodes remain focal in campaigns. This evolution is regrettable, as viewers learn little of substance (about the choice they face) from such coverage and it leads to frustration and disaffection with the political process.

Blame for the focus on gaffes, by Patterson's account, lies at the feet of media: citizens desire policy-focused coverage, but the media focuses on candidate events because they are event-driven rather than analytical and more easy to cover in a detached, neutral style (Patterson 1994, 149). In contrast, our results suggest that at least some of the fault is not in our media, but in ourselves. Perhaps the media focuses on missteps not because doing so is easy, nor because it allows the media to avoid the perception of bias, but rather because over time, they have learned that when citizens can choose from a range of topics, the gaffe is what sells.

Finally, we note some weaknesses in the present research as well as opportunities for future studies. First, the results above are limited to the Facebook social media network. Facebook is attractive because its targeting capabilities facilitate a randomized study such as ours and because of its size and heterogeneity. The style of the website, however, could bear on the results we see. Facebook has a reputation as a hub in which users fill idle moments and procrastinate. As such, its users could be in a mindset more friendly to distraction, especially from an advertisement that is novel. On the other hand, this conforms to the way a great number of citizens are thought to come across political information—as an incidental by-product of other, more primary pursuits (Fiorina 1990), and we might expect political ads of all stripes would attract greater attention on sites where people are actively seeking political content (e.g., news websites, political blogs). Future studies could test the extent to which context bears on our results by conducting studies through other online forums.

Second, as we note above, our study took place just before a presidential election, when candidate coverage and the general salience of political topics were at peak intensity. It is possible that the relationships we identify would be more subtle if examined at the midpoint of an election cycle. This said, we can think of reasons that *both* congeniality and accuracy motivations would be less prominent. Partisan identities might retreat into the background when

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[18] Other scholars argue that the media has a preference for scandals (Sabato 2000; Nyhan 2014) and conflict (Graber 1997; Groeling 2010, especially Ch. 3). These outcomes are conceptually close to our focus (personality-focused news, represented by gaffes), though they are not exactly the same. In particular, we note that a media appetite for scandal is, at least sometimes, a good thing. (The media *should* dedicate substantial attention to genuine scandals such as the Watergate cover-up.) A string of gaffes might reflect a dispositional liability for holding office, but as a general matter, gaffes often imply something more fleeting and hollow.

candidates are not clashing on a daily basis. Likewise, information might be seen as less useful when a decision point is distant. Thus, we do not think the timing of our study stacks the deck too much in favor of one possibility or the other.[19]

Third, learning is a multi-step process that begins with exposure, but probably also requires some degree of concentration, elaboration, and solidification (Petty and Cacioppo 2011). We have presented evidence that bears only on the first step, and in a fairly sparse way at that. Future studies should consider more elaborate ways to measure exposure, such as by presenting advertisement clickers with a menu of information and observing exposure behavior after the first click.[20] There is also the possibility of combining the experimental design we use here with survey methods to gauge how much advertisements affect opinion change and candidate recognition (cf. Broockman and Green 2014). Nonetheless, our focus here has been on that crucial first step, asking what shapes citizen choices to expose themselves to election messages.

Fourth, we have focused on one dimension (other than congeniality) that could affect exposure decisions: the emphasis on candidates as people (and specifically, gaffes) versus policy-related (in this case, economic implications) information about the candidates. As we noted earlier, there are many additional dimensions worthy of exploration. Even with respect to the Congeniality Hypothesis, our focus here was entirely on attacks, as opposed to information that might discuss positive attributes of one's own candidate or the opponent. Given evidence that positive and negative information are processed differently (Krupnikov 2011, 798), the dynamics of positive congenial information could easily merit separate tests.

Finally, we note that our study examines the *spontaneous* aspect of selective exposure—decisions that occur as citizens go about their routine social and entertainment activities. These decisions might be different from those that occur when scanning the news for politics deliberately, or decided which websites to bookmark for habitual reading. This design attribute limits how grandly we can draw conclusions from our results, but also comes with a distinct advantage: the information age is making citizens accustomed to accessing any kind of information they want with a few keystrokes, and a substantial proportion of learning might occur through precisely such spontaneous exposure decisions.

Research on media effects has always suggested that "who learns what?" results from a complex interaction between what information is available, and choices about whether and how to consume it. Having an abundance of information at our fingertips certainly has the potential to empower, as almost anyone who is motivated can accumulate a degree of expertise that once would have been considered exceptional. At the same time, the results we report here suggest a troubling by-product comes with the ability to affirm one's preconceptions "on demand."

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[19] Parker-Stephen (2013) suggests that partisan motivations influence opinions more substantially when economic indicators provide mixed signals, and less when they paint a clear picture of a booming or ailing economy. By this thinking, our study was well timed to detect partisan biases, as economic indicators were neither especially favorable nor unfavorable.

[20] We have developed an approach to do so, but the overall click-through numbers in the present study are too few to allow us to say anything conclusive.

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